REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed April 1, 2008. The Examiner is thanked for the thorough examination of the present application. Upon entry of this response, claims 1-14 and 29-42 are pending in the present application. Applicants respectfully request consideration of the following remarks contained herein. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Objection to the Abstract

As indicated above, Applicants have amended the abstract and request that the noted objections be withdrawn.

II. Response to Claim Objections

As indicated above, Applicants have amended the claims to overcome the claim objections noted on page 2.

III. Response to Claim Rejections Under 35 U.S.C. § 103

The USPTO has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquires, also expressed in MPEP §2141, are as follows:

(A) Determining the scope and contents of the prior art;

(B) Ascertaining the differences between the prior art and the claims in issue;

(C) Resolving the level of ordinary skill in the pertinent art; and

(D) Evaluating evidence of secondary considerations.

For a proper rejection of the claim under 35 U.S.C. §103, the cited combination of references must disclose, teach or suggest all elements / features of the claim at issue. See, e.g., *In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988) and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

Claims 1, 3, 5-9, 13, 14, 29, 31, 33-37, 41, and 42 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Chu et al.* (U.S. Patent No. 6,934,345, hereinafter "*Chu*") in view of *Ross et al.* (U.S. Patent No. 5,652,799, hereinafter "*Ross*"). Furthermore, claims 2, 4, 30 and 32 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Chu* in view of *Ross* as applied to claims 1 and 29, and further in view of *Lai* (U.S. Patent No. 7,042,969). Finally, claims 10-12 and 38-40 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Chu* in view of *Ross* as applied to claims 1 and 14, and further in view of *Bergmans* (U.S. Patent No. 4,905,254). For at least the reasons set forth below, Applicants traverse the rejections set forth.

A. Independent Claim 1

Applicants respectfully submit that independent claim 1 patently defines over *Chu* in view of *Ross* for at least the reason that the combination fails to disclose, teach or suggest the features emphasized below in claim 1.

Claim 1 recites:

> 1. A method for reducing interference due to handshake tones in the frequency domain, the method comprising the steps of:

receiving an input signal in the frequency domain having a short correlation time component and a long correlation time component;

generating a delayed signal by delaying the input signal by a delay value;

generating a prediction signal based at least in part on the delayed signal;

comparing the input signal and the prediction signal; and

reducing a variance between the input signal and the prediction signal.

(Emphasis added). Applicants respectfully submit that neither the *Chu* reference nor the *Ross* reference, individually or in combination, disclose, teach, or suggest the feature emphasized above in claim 1. On page 4, the Office Action alleges that the *Chu* reference discloses this step and cites col. 16, lines 30-43 and col. 10, lines 39-49. Applicants respectfully submit, however, that *Chu* fails to disclose, teach, or suggest ***reducing a variance between the input signal and the prediction signal***. With regards to the cited passages, the Office Action asserts that *Chu* discloses "*minimizing an error representing a variance between the input signal (received data signal) and the prediction signal (equalized symbol decision) by updating the noise coefficients of the noise predictor*." (Emphasis added; Office Action, page 4). The Office Action, however, fails to specify with particularity how *Chu* discloses "reducing a variance between the input signal and the prediction signal," as explicitly recited in claim 1. Applicants respectfully submit that asserting that "error" equates to or represents a variance is conclusory in nature. Applicants note that claim 1 does not recite "reducing an error." Rather, claim 1 explicitly recites "reducing a variance." As such, *Chu* fails to disclose, teach, or suggest this feature. Moreover, the secondary *Ross* reference fails to address this deficiency.

Accordingly, Applicants respectfully submit that independent claim 1 patently

defines over *Chu* in view of *Ross* for at least the reason that the combination fails to disclose, teach or suggest the highlighted features in claim 1 above. Furthermore, Applicants submit that dependent claims 2-14 are allowable for at least the reason that these claims depend from an allowable independent claim. *See, e.g., In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

B. Independent Claim 29

Applicants respectfully submit that independent claim 29 patently defines over *Chu* in view of *Ross* for at least the reason that the combination fails to disclose, teach or suggest the features emphasized below in claim 29.

Claim 29 recites:

> 29. A system for reducing interference due to handshake tones in the frequency domain, the system comprising:
> an input for receiving an input signal in the frequency domain having a short correlation time component and a long correlation time component;
> a delay module for generating a delayed signal by delaying the input signal by a delay value; and
> a filter for generating a prediction signal based at least in part on the delayed signal;
> ***wherein*** the input signal and the prediction signal are compared and ***a variance between the input signal and the prediction signal is reduced***.

(Emphasis added). Applicants respectfully submit that neither the *Chu* reference nor the *Ross* reference, individually or in combination, disclose, teach, or suggest the feature emphasized above in claim 29. On page 6, the Office Action alleges that the *Chu* reference discloses this step and again cites col. 16, lines 30-43 and col. 10, lines 39-49. Applicants respectfully submit, however, that *Chu* fails to disclose, teach, or suggest the limitation, ***wherein*** . . . ***a variance between the input***

signal and the prediction signal is reduced. Applicants respectfully submit that the Office Action fails to specify with particularity how *Chu* discloses "wherein . . . a variance between the input signal and the prediction signal is reduced," as explicitly recited in claim 29. Applicants respectfully submit that *Chu* fails to disclose, teach, or suggest reducing the variance. Moreover, the secondary *Ross* reference fails to address this deficiency.

Accordingly, Applicants respectfully submit that independent claim 29 patently defines over *Chu* in view of *Ross* for at least the reason that the combination fails to disclose, teach or suggest the highlighted features in claim 29 above. Furthermore, Applicants submit that dependent claims 3-42 are allowable for at least the reason that these claims depend from an allowable independent claim. *See, e.g., In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

IV. New Claim 57

Applicants submit that new claim 57 is allowable over the cited references. Specifically, independent claim 57 is allowable for at least the reason that the cited references do not disclose, teach, or suggest ***means for reducing a variance between the input signal and the prediction signal***.

CONCLUSION

Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 50-0835.

Respectfully submitted,

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